

**BUREAU OF LAND MANAGEMENT  
ELKO FIELD OFFICE  
BURNED AREA EMERGENCY REHABILITATION AND STABILIZATION TEAM**

**August 2001 Fire Complex**

**WILDLIFE ASSESSMENT**

**I. ISSUES**

- Extensive loss of critical big game and sage grouse habitat.
- Critical loss of wildlife habitat, (deciduous woodland habitat) as a result of the fires.
- The threat of exotic annual plant species establishment/domination of burned areas and subsequent increase in fire frequency.

**II. OBJECTIVES:**

The purpose of this Wildlife Assessment is to document the effects of the fire, suppression activities, and proposed rehabilitation work to restore habitat for big game species, upland game birds or otherwise significant mammals and birds.

Other species and issues identified by the BLM staff at the Elko Field office to be addressed include loss of crucial big game and sage grouse habitat.

**A Wildlife Background**

The August 2001 Elko fire Complex associated with the Elko Field Offices burned approximately 259,165 acres between the last week of July through August 14, 2001. Because of strong winds and fuel types, these fires burned quickly through these areas and consumed large acreage in a short period of time. Vegetation resources were impacted by varying degrees as burn intensities were relatively uniform across the landscape. However there were blocks of unburned vegetation and varying amounts of mosaic in these burn patterns. Elevation ranges within the fires areas are from approximately 4,300 to 8,500 feet.

Plant communities within the fire areas include large blocks of cheat grass and other grass species, sagebrush, mountain shrub communities, juniper, aspen, and riparian habitats with willow and other riparian species. Many of the ridges are vegetated by the pinon-juniper forest vegetation, reflecting shallow rocky soil types. The climate in the area is arid, with precipitation primarily occurring during winter months with a variety of wildlife habitats present within the fire area. Wildlife species found in these habitats vary in abundance and diversity depending on the type and condition of the vegetation. Approximately 350 species of wildlife including mammals, birds, amphibians, reptiles, and fish are potentially seasonal or year-long residents on the Elko Field Office area [Nevada Elko District (Field Office) Species Lists]; many of these species inhabit areas near or within these fire areas.

\*\*\*The following is detailed wildlife information broken down by fire, and was provided by the BLM and Nevada Division of Wildlife (NDOW) for the specific areas of concern. Only those fires with specific wildlife concerns as stated by the BLM and NDOW will be mentioned. The first fires will be listed in priority order of importance, based on the need to vegetate crucial big game and sage grouse habitats that are most vulnerable to

cheatgrass and other weed invasion. It should also be noted that the BLM and NDOW biologists feel strongly that areas to be seeded, as well as some of the areas not recommended for seeding that were in relatively good condition before the fire, will successfully re-vegetate only if adequate rest as a result of proper livestock grazing is implemented following the fires.

## **B. Reconnaissance Methodology and Results**

Wildlife information for this assessment was based upon a review of relevant literature, and personal communications with BLM and Nevada Division of Wildlife. Reconnaissance included field reviews.

### **Species Of Concern:**

Sage grouse: Of the six TECS species assessed, the fires had the most affect on sage grouse habitat. It is widely know that sage grouse (*Centrocercus urophasianus*) are a growing concern across the West. At a sage grouse workshop in Billings, Montana in July, 1998, representatives of every western state presented data depicting long-term population decline. In Nevada, sage grouse populations in certain areas continue to decline according to most trend indices (Saake and Stiver 1999). Sage grouse have been designated by the Nevada Bureau of Land Management State Director as a BLM Sensitive Species and therefore afforded by BLM policy (BLM 1988, 1998) the same level of protection as candidate species, this is, "BLM shall carry out management, consistent with principles of multiple use, for the conservation of candidate species and their habitats and shall ensure that actions authorized, funded, or carried out do not contribute to the need to list any of these species as threatened or endangered".

Although the suspected causes of sage grouse decline are numerous, loss of habitat ranks at the top of the list (Braun 1998). The primary concern of local experts with respect to range fires is the loss of sage grouse habitat. Rehabilitation of sage grouse habitat, and the prevention of invasion by fire prone annual weeds is a wildlife management priority of both NDOW and BLM and is reflected in the treatment specifications of this plan.

Other species listed on the Nevada State and BLM sensitive species lists not requested by BLM or NDOW personnel to discuss here, are located in Appendix III.

**Dunphy Fire:**

During August 2001, the Dunphy Fire burned approximately 9,722 acres (661 acres public and 9,061 acres private) near Dunphy in Eureka County. The fire primarily affected the Wyoming and basin big sagebrush vegetation types. The subject area provides some of the most important crucial mule deer and pronghorn winter range for affected big game herds. The availability of winter habitat is a critical limiting factor. The area also provides pronghorn summer range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found in intact sagebrush habitat in the area on a seasonal or yearlong basis. The fire was driven by strong winds and burned in a mosaic pattern on public lands leaving an estimated 40% of it unburned within the fire perimeter. In addition, previous seeding efforts geared towards rehabilitation of this area after previous fires provided some discontinuous fuel sources and vegetative fuelbreaks.

**Hot Lake:**

During August 2001, the Hot Lake Fire burned approximately 70,909 acres (68,332 acres public land and 2,578 acres of private) in the Izzenhood Range, north to Squaw Valley, and east to Ivanhoe Creek and North Antelope Creek in eastern Elko County and northern Lander County. The fire primarily affected the Wyoming and basin big sagebrush vegetation types. The low sagebrush vegetation type generally burned in a mosaic pattern inside the eastern portion of the burn perimeter. Quaking aspen stands were affected on the north face of Sixmile Hill and North Sixmile drainage. The subject area provides mule deer intermediate range, crucial winter range and migration corridors to other winter range areas to the south. The availability of winter habitat is a critical limiting factor for the affected mule deer herd unit. Use also occurs in some areas during the summer period. The area also provides pronghorn intermediate range and summer range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species, Chucker partridge also inhabits the Rock Creek Canyon and surrounding area. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. The northern, southwestern and northeastern portions of the fire included areas that burned relatively complete in block burn configurations with minimal number of unburned islands of vegetation.

**Sheep Fire:**

During August 2001, the Sheep Fire burned approximately 83,673 acres (42,357 public and 41,316 private) in the Sheep Range in Lander County. The fire primarily affected the Wyoming and basin big sagebrush vegetation types. The low sagebrush vegetation type generally burned in a mosaic pattern north of the southern rim of the range. Riparian vegetation was affected in the Battle Creek and Sheep Creek drainages, Izzenhood Spring area, and unnamed seeps, springs and drainages on the range. The flanks of the Sheep Creek Range provide crucial mule deer winter range. The availability of winter habitat is a critical limiting factor for the affected mule deer herd unit group. Use also occurs in some areas during the summer period. The area also provides pronghorn summer range and crucial winter range, and California bighorn sheep yearlong range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. The Sheep Fire Area provides a habitat for a large Chukar Partridge population. A number of small game guzzlers were burned over by the fire but it appears that there was no major fire damage to the guzzlers. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area with many more additional species also found

in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. Some unburned areas are located within the burn perimeter south of the northern perimeter, west of the northeast upper rim, on rocky mid elevation areas on the east face of the range, north of the southern rim on claypan sites, and on one abandoned mine area on the west slope. Otherwise, the majority of the area was burned in block burn configurations with variations from complete burns to burns with scattered islands of unburned vegetation.

#### **Ranch Fire:**

During August 2001, the Ranch Fire burned approximately 18,966 acres (12,422 acres public and 6,544 acres private) in the Snowstorm Range and lower alluvial areas south of this range in Elko and Humboldt Counties. The fire primarily affected the Wyoming big sagebrush, basin big sagebrush, low sagebrush, salt desert shrub, and mountain shrub vegetation types. The burn area provides crucial mule deer winter range. The availability of winter habitat is a critical limiting factor for the affected mule deer herd unit group. Mule deer use also occurs in some upper elevation areas during the summer period. The area also provides pronghorn summer range and crucial winter range, and California bighorn sheep yearlong range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found on intact sagebrush habitat in the area with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. Some unburned areas are located within the fire perimeter on the lower south slopes of the Snowstorm Range on public and private lands. Otherwise, the majority of the area was burned in two block burn configurations with small inclusions of scattered islands of unburned vegetation.

#### **Stag Fire:**

During the period of August 3 through August 9, the Stag Fire burned approximately 19,578 acres in North/Central Elko County. The fire burned through the Stag Mountain area which provides crucial big game summer, fawning and transitional habitat. The fire consumed the majority of the vegetation in the flats dominated by annual vegetation. Large blocks of intact stands of big sagebrush were also burned in the flats, draws and mid slopes. The burn was rated as severe in approximately 80% of the area, adversely affecting critical big game habitat and sage grouse brooding areas. Overstory removal of big sage reduces hiding cover necessary in preventing aerial predation. All of the mountainous terrain that burned in the Stag fire also supported Chukar. The loss of the vast sagebrush component will severely impact nesting and brooding habitat and limit escape cover.

#### **Rodeo Creek Fire:**

During August 2001, the Rodeo Creek Fire burned approximately 5,529 acres (2,706 acres public and 2,822 acres private) in the Sheep Range in Lander County. The fire primarily affected the Wyoming and basin big sagebrush vegetation types. The subject area provides mule deer intermediate range and crucial winter range, and a migration corridor to and from other crucial winter range areas to the south. The availability of winter habitat is a critical limiting factor for the affected mule deer herd unit. The area also provides pronghorn intermediate range, summer range and crucial winter range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. The area also provides habitat for Chukar Partridge and California Quail. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area on a seasonal or yearlong basis. Although some areas were burned leaving scattered islands of unburned vegetation, the majority of the area was burned in a block burn configuration.

**Buffalo Fire:**

During August 2001, the Buffalo Fire burned approximately 21,188 acres (16,639 acre public and 4,549 acres private) in the Snowstorm and Tuscarora Ranges in eastern Elko County. The fire primarily affected the Wyoming and basin big sagebrush vegetation types. Several quaking aspen stands were also affected on Frazer Creek, Milligan Creek and east side of Black Cliff. The low sagebrush vegetation type generally burned in a mosaic pattern on upper elevation areas near Milligan Creek and more complete at lower elevations in the Buffalo Creek area. Mountain shrub vegetation types, dominated by serviceberry, and bitterbrush-big sagebrush vegetation types were also affected on burned ecological sites where this vegetation occurs. The subject area provides mule deer summer range and intermediate range, and pronghorn summer range. The availability of intact intermediate range areas provide cover and food prior to movements to and from winter range areas. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. The burned area also provides habitat for Chukar Partridge. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. With the exception of areas just within the fire perimeter where larger blocks of unburned vegetation occurs, the majority of the area was burned in block burn configurations with variations from complete burns to burns with scattered islands of unburned vegetation.

**Coyote Fire:**

During August 2001, the Coyote Fire burned approximately 11,675 acres (7,829 acres public and 3,846 acres private) in the Tuscarora Range in Elko County. The fire affected the basin big sagebrush, Wyoming big sagebrush, low sagebrush, mountain shrub and bitterbrush-big sagebrush vegetation types. It also affected ecological sites where several hundred acres of quaking aspen, wet and dry meadows and riparian areas are present. The subject area provides mule deer summer range and intermediate range, and pronghorn summer range. The availability of intact intermediate range areas provide cover and food prior to movements to and from winter range areas to the south. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. With the exception of just inside the fire perimeter areas where inclusions of unburned vegetation occurs, the majority of the area was burned in block burn configurations with variations from complete burns to burns with scattered islands of unburned vegetation.

**Tabor Creek Fire:**

The Tabor Creek Fire burned approximately 7,004 acres in the Snake Range approximately 25 miles northwest of Wells, Nevada. The vegetative communities impacted included mountain brush/bunchgrass, and low sage/bunchgrass communities. Drainage's of basin big sage with very little under story were burned. The Snake Mountains provides critical summer habitat for antelope, mule deer and elk. The area also supports upland game birds including chukar, and sage grouse.

Less than 10% of the fire burned at an intense level. The majority of the fire burned light in a mosaic pattern, leaving unburned islands/seed sources for regeneration.

**Mile Marker 367 Fire:**

On August 4<sup>th</sup>, 2001 the Mile Marker 367 fire burned approximately 8,823 acres in the West

Pequop Mountains East of Wells, Nevada. This fire burned in a variety of vegetation communities. High elevation vegetation included mountain brush/bunchbrush and pinyon pine/pinyon juniper communities. Lower elevation communities consisted of sagebrush/bunchgrass in scattered pinyon juniper. One aspen stand, mountain mahogany, bitterbrush and several species of grasses were also present. This area provides valuable habitat for mule deer, elk, antelope and upland game birds. Raptors use the area for foraging and roosting sites. The fire burned near one big game guzzler, but was not destroyed. The fire was rated as moderate to severe intensity levels with range specifications sufficient for the recovery of wildlife habitat.

#### **North Delano Fire:**

The 8,823 acre North Delano Fire started on August 4<sup>th</sup>, 2001. The plant communities burned by the fire included mountain big sage, low sage, bitterbrush, Idaho fescue, bluebunch wheatgrass, Canby bluegrass, Nevada blue grass, Thurber's needlegrass, and a variety of forbs. Fire severity in the area was high to severe due to the presence of dense juniper stands. The area burned encompassed deer, elk and antelope year-long habitat. Range seeding specifications would be sufficient for any wildlife habitat rehabilitation.

#### **Bailey Fire:**

During August 2001, the Bailey Fire burned approximately 1,201 acres (432 acre public and 769 acres private) on the western slope of the Pinon Range in Eureka County. The area provides yearlong mule deer range. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found on intact sagebrush habitat in the area with many more additional species also found in the vicinity of riparian and meadow habitats on a seasonal or yearlong basis. The majority of the area was burned in a block burn configuration with small inclusions of scattered islands of unburned vegetation.

#### **Dee Gold Fire:**

During August 2001, the Dee Gold Fire burned approximately 316 acres (all public) the near the Dee Gold (Glamis Gold) Mine site in Eureka County. The fire primarily affected the basin big sagebrush vegetation type. The area provides mule deer intermediate range and migration corridors to and from winter range areas to the south. It also provides pronghorn summer range, crucial winter range (emphasis) and migration corridors to and from other winter range areas to the south. The area provides habitat for golden eagle, burrowing owls, Swainson's hawks and ferruginous hawks, which are State of Nevada Listed Species. The area also provides habitat for sage grouse, a BLM Sensitive Species. Overall, there are approximately 100 bird species, 70 mammal species and several reptile and amphibian species that can be found inhabiting intact sagebrush habitat in the area on a seasonal or yearlong basis. The area burned in an narrow, elongated pattern where the natural recovery of basin big sagebush is likely from seed from adjoining stands; perennial herbaceous vegetation should recover on site.

### **III. RECOMMENDATIONS**

#### **A. Management:** (Specifications related)

The following activities can be accomplished by using ESR funds as outlined in the stipulations section of this plan.

##### **a. #19 V-2 Ecological Stabilization - Planting/Seeding**

Aerially seed crucial big game winter range and sage grouse habitat to reestablish shrub species important for cover, nesting, and forage.

**b. #18 V-1 Ecological Stabilization - Planting/Seeding**

Fires within the August Elko 14 2001 Fires have negatively impacted mid to late seral plant communities and increased the potential for erosion, loss of ecological integrity through the invasion of non-native species, and the spread of known populations of noxious weeds. Range sites within the 14 fires covered under this plan have been analyzed and prioritized for treatment to prevent site degradation, maintain ecological stability, and prevent spread of non-native, invasive weeds along roads by reseeding using species adapted to the sites.

**B. Monitoring (specification related):**

The following rehabilitation-related monitoring may be accomplished through the use of ESR funds.

**a. #23 V-6 Monitoring and Evaluation of Emergency Treatments**

Monitor vegetation for rehabilitation seeding success in crucial big game winter ranges. Measure utilization on rehabilitation seeding from livestock grazing and wildlife.

**C. Management: (Non-specifications related)**

The following recommendations are made for the purpose of mitigating fire, suppression activity and subsequent long term rehabilitation effects to all wildlife species found within the fire area.

1. Complete management actions necessary to protect affected deciduous trees and shrubs including, but not limited to, quaking aspen, bitterbrush, service berry, snowberry and chokecherry from livestock grazing as necessary to ensure that

resprouting stems and seedlings that result after the fire are protected. This would include said vegetation that was affected by the fire that was or was not initially identified during summer 2001 after post-fire reconnaissance surveys.

2. Monitor critical bitterbrush and other mountain shrub areas for post fire resprouting and utilization, and address possibilities or need for planting or resource protection in the future if dictated from monitoring.
3. Ensure flexibility in the wildlife seed operation based on seed availability and priority areas. In case of seed shortages, the identified areas could be strip-seeded. For example, if only 50% of the seed is available, the same identified areas would be seeded, but only every other swath would be seeded.
4. Evaluate the opportunities to minimize sediment-loading from road-widening activities adjacent to the stream channel.
5. Rather than reconstruct enclosures, evaluate opportunities for construction of a watershed based riparian pasture.

## **VI. SOURCES OF INFORMATION FROM WHICH THIS REPORT WAS DERIVED:**

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## VII. REFERENCES:

FWS Species list for Elko Field Office dated 07/26/00

FWS, Endangered Species Act of 1973 as Amended through the 100th Congress, 1988.

FWS, Endangered Species Consultation Handbook, Chapter 7 - Emergency Consultation, received 8/4/95.

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Saake, Norm and San Stiver. 1999. Nevada upland game, furbearer and waterfowl: status and hunting seasons recommendations. Nevada Division of Wildlife. Reno

Coffin, Patrick and William Cowan. 1995. Lahontan cutthroat trout recovery plan. Region 1, U.S. Fish and Wildlife Service, Portland Oregon.

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